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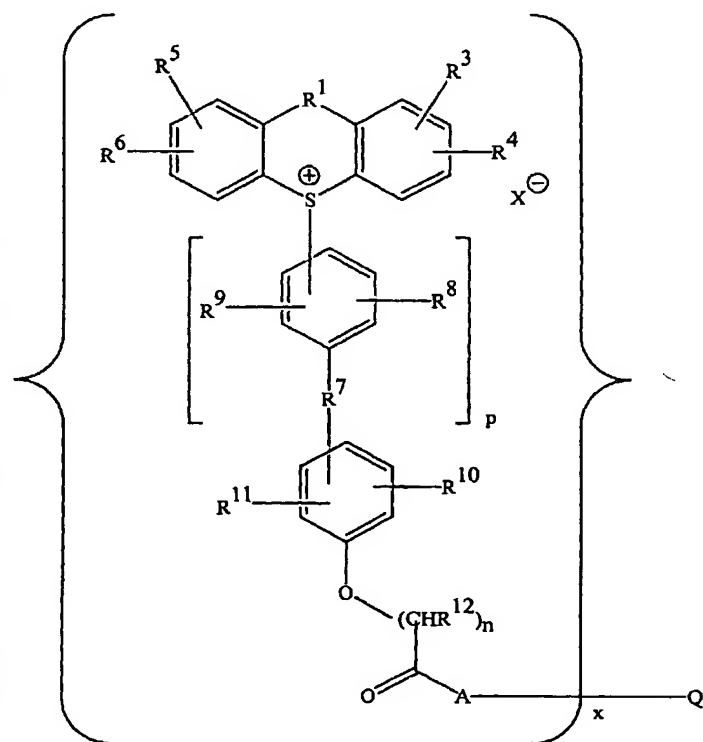
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(54) Title: MULTIFUNCTIONAL CATIONIC PHOTOINITIATORS, THEIR PREPARATION AND USE



- (57) Abstract: Compounds of formula (I): [where: R¹ is a direct bond, oxygen, a group >CH₂, sulphur, a group >C=O, a group-(CH₂)₂- or a group-N-R^a, where R^a is hydrogen or alkyl; R³, R⁴, R⁵ and R⁶ are hydrogen or substituents α; R⁸, R⁹, R¹⁰ and R¹¹ are hydrogen, hydroxy or alkyl; or R⁹ and R¹¹ are joined to form a fused ring system with the benzene rings to which they are attached; R⁷ is a direct bond, oxygen or a -CH₂-group; p is 0 or 1; substituents α are: alkyl, alkoxy, alkenyl, halogen, nitrile, hydroxyl, aryl, aralkyl, aryloxy, aralkyloxy, arylalkenyl, cycloalkyl, carboxy, carboxyalkoxy, alkoxy, carbonyl, aryloxy, carbonyl, alkyl, carbonyloxy, alkanesulphonyl, arenesulphonyl, alkanoyl or arylcarbonyl; n is 1 to 12; R¹² is hydrogen, methyl or ethyl; A is a group -[O(CHR¹³CHR¹⁴)_a]_y-, -[O(CH₂)_bC(=O)]_y-, or -[O(CH₂)_bC(=O)]_y-, -[O(CHR¹³CHR¹⁴)_a]_y-, where: one of R¹³ and R¹⁴ is hydrogen and the other is hydrogen, methyl or ethyl; a is 1 to 2; b is 4 to 5; Q is a residue of a polyhydroxy compound having from 2 to 6 hydroxy groups; x is a number greater than 1 but no greater than the number of available hydroxyl groups in Q; y is a number from 1 to 10; and X⁻ is an anion]; and esters thereof are useful as cationic photoinitiators, especially for use in surface coating applications, such as printing inks and varnishes, and which are intended to be cured

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by polymerisation initiated by radiation.



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